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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of

Federal-Joint Board on
Universal Service

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CC Docket No. 96-45

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REPLY COMMENTS OF VANDERBILT UNIVERSITY

VANDERBILT UNIVERSITY (Vanderbilt) submits the following Reply Comment in the above referenced proceeding.

I. Introduction

On behalf of Vanderbilt University, I appreciate the opportunity to submit a Reply Comment on the Recommended Decision of the Federal-State Joint Board on Universal Service issued November 8, 1996.

As America moves forward down the Information Superhighway, the recent Joint Board recommendation presents an exemplary road map for the Federal Communications Commission (FCC) to follow as it fulfills the Congressional mandate to provide affordable access to high-quality telecommunications services to schools and libraries across the country.¹ Vanderbilt University applauds the leadership of the Joint Board for their strong decision to ensure that universal service means no one is barred from benefiting from the power of the Information Age. The recommendation opens new worlds of knowledge, learning and education to all Americans by

¹ Section 254(h)(2)(A) of the Telecommunications Act of 1996 directs the Commission to establish rules "...to enhance, to the extent technically and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms..."

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proposing discounted rates and internal wire/wireless connectivity to kindergarten through twelfth grade (K-12) classrooms and libraries, and encourages the formation of partnerships between K-12 schools and other educational institutions such as universities, in supporting and implementing National Information Infrastructure (NII) initiatives.

II. Discussion

A. Discount Rates and Affordable Access

As competition and the maturation of technologies in local exchange, long distance and cellular markets continue to grow, many local carriers are seeking the application of access charges to such use. Such access charges could be prohibitive, precluding participation in advanced telecommunication services for K-12 education. The Joint Board recommendation provides for deep discounts on a stepped scale that ranges from 20 to 90 percent depending on a school's ability to pay.²

Vanderbilt supports the Joint Board recommendation that the Commission permit different schools and libraries the flexibility to address their individual needs and service requirements. Permitting schools and libraries full flexibility among telecommunications services also eliminates the potential impediment that new technologies will not be available to schools and libraries until the Commission has had the opportunity to evaluate services needs. Schools and libraries will be able to use and teach students to use state of the art telecommunications technologies as they arrive on the commercial market. This flexibility should encourage schools and libraries to use both the most efficient services, including wireless and other emerging technologies.

² CC Docket No. 96-45, released November 8, 1996.

In determining affordable access, the Joint Board recommendation has looked at not only subscribership levels, but also considered income levels, population densities and the scope of the local calling area, all of which may impact affordability. While discount methodologies will no doubt require further review in the next few months, I urge the Commission to recognize that discounts must be real, significant and meaningful to economically disadvantaged schools, high-cost area schools and all those in between.

B. Connectivity: Internal Connections, Internet Access and Teacher Training

The boldest initiative of the Telecommunications Act of 1996 requires the Commission to promote the connection of schools and libraries to the Information Superhighway. However, I share the serious concern with many others that disparities in access to information tools will widen the economic and cultural divide between rich and poor, especially where the Information Superhighway "hits the dirt road."³ Vanderbilt University supports the recommendation of the Joint Board that the Commission promote the connection of not only "schools," but of "classrooms," by ensuring that internal connections receive universal service discounts. As the Benton Foundation stated, "it is the plain intent of Congress to connect classrooms, not just to reach the school house door." However, internal connections can mean more than routers, hubs, network file servers and wireless LANS. Connecting classrooms also requires teachers that know how to use technology, to assist students in accessing the Internet, computer learning tools and resources.

Vanderbilt has experienced firsthand the significant contributions to be made when classrooms can connect to the electronic learning community through Vanderbilt's Virtual School.

³ Senators Snowe and Rockefeller emphasized the fact that thirty-five percent of public schools have access to the Internet, but only three percent of classrooms are connected to the Internet.

The Virtual School has given teachers hands-on training in computer technology and helped teachers connect with one another and experts at Vanderbilt and around the world. To date, over 20,000 Tennessee teachers have network access and have received Virtual School training, now offered at over 142 sites around the state.

The success of the Virtual School demonstrates that teachers are ready, willing and able to use the network with great effectiveness in their classrooms. However, to be effective, access must be provided at many points within every classroom in every school. The necessity of readily available access means that wire, wireless, advanced services and perhaps mostly importantly teacher-student connections are imperative to get America's students full speed ahead on the Information Superhighway. I urge the Commission to fully adopt the recommendation of the Joint Board on the internal connection universal service initiative.

C. Eligibility: Partnerships in the Electronic Learning Community

The Joint Board strongly advocates K-12 schools and libraries to aggregate with other educational institutions, including colleges and universities, to enable them to enjoy efficiencies and negotiate better deals from service providers.⁴ The U.S. Distance Learning Association also explains that, "to meet certain educational goals, schools may enter into resource sharing arrangements with other schools and with outside entities, including colleges..." At Vanderbilt we have a long standing commitment to developing partnerships in learning with local, state and national schools.

⁴ CC Docket No. 96-45, released November 8, 1996. The Joint Board stated: "Limiting such a consortium to include only other K-12 schools and libraries could severely constrain their ability to achieve sufficient demand to attract potential competitors and thereby to negotiate lower rates or at least secure efficiencies, particularly in lower density regions."

Many institutions, including Vanderbilt, have an infrastructure of telecommunications that supports expanding and adopting new technologies in K-12 classrooms. In fact, our research and development effort often aids in extending these new technologies. This is especially true in the area of applications such as those created by our school of teacher education, Peabody College. One illustration would be "The Adventures of Jasper Woodbury," a problem-solving series that combines the story-telling appeal of multi-media with computer and interactive videodisc technology, creating an inviting environment for students to learn complex math skills. The program is currently being used in classrooms across the country at a variety of grade levels to help students develop the necessary reasoning skills to solve real-life math problems.

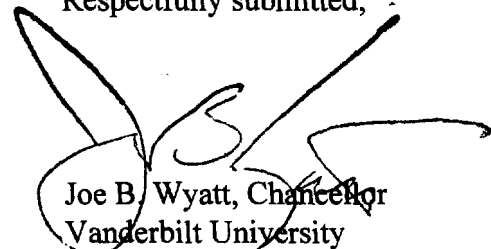
To truly eliminate barriers to advance telecommunications services the Commission must secure guidelines, such as those recommended by the Joint Board, to encourage partnerships between K-12 schools and higher education. I believe that partnerships in education between schools and higher education could assure that exceptional learning tools such as Jasper Woodbury could be made available to an even greater number of K-12 classrooms, assist in the development of teacher training at colleges and universities across the country, and connect students, teachers and other educators to each other and the world wide learning community. Partnerships with higher education would help to efficiently manage the high cost and mobility of the present and future electronic learning community and promote the Congressional goal of helping to "...open new worlds of knowledge, learning, and education to all Americans, rich and poor, rural and urban...via schools and libraries."⁵

⁵ CC Docket No. 96-45, released November 8, 1996

III. Conclusion

I would welcome the opportunity to engage in discussion with the Commission and others submitting Reply Comments on this topic about specific opportunities for the Commission to uphold the recommendation of the Joint Board, the statutory mandate of the Telecommunications Act and ensure that the goals of affordable service and access to advanced services are met in classrooms nationwide.

Respectfully submitted,



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January 8, 1997